

54



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,022	04/06/2001	Joe Depaolantonio	CSCO-3809	6438

7590

05/24/2005

WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,022

Applicant(s)

DEPAOLANTONIO, JOE

Examiner

Barry W Taylor

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6 and 9-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan et al (6,115,743 hereinafter Cowan) in view of Smorgrav (6,615,261).

Regarding claims 1, 12, 17, 26 and 31. Cowan teaches an automated network communication device audit tool method (Title, abstract) comprising:

gathering communication device information (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47) automatically (see figure 2 and columns 5-16 especially column 10 lines 58-64);

parsing the gathered communication device information (col. 1 lines 30-35, col. 2 lines 44-58, col. 3 line 64 – col. 4 line 11, col. 5 lines 49-60, col. 6 lines 30-35, col. 7 lines 1-10, col. 9 lines 23-67, columns 14-16), including identifying portions of the communication device information and correlating the portions of the communication device information to an operation or characteristic of a network communications device (figures 11 and 16, col. 10 lines 12-22, col. 12 lines 33-46, col. 13 lines 18-32);

Art Unit: 2643

determining if additional communication device information is required (col. 2 line 59 – col. 3 line 3, col. 6 lines 36-67, col. 11 lines 36-67, col. 13 line 65 – col. 14 line 28);

analyzing the characteristic and operations of the network communication device (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47); and

reporting the communication device information (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47) in a convenient format including identification of problems (figure 11).

According to Applicant, Cowan fails to teach automatically parsing the gathered data (see paper number 9, amended independent claims, dated 8/11/20004).

Smorgrav teaches method and apparatus for displaying health status of network devices (abstract). Smorgrav discloses configuration, performance and fault information (abstract, col. 1 line 10 – col. 2 line 40). Smorgrav teaches the data collected can be exploited either manually by an operator or automatically (col. 1 lines 26-47). Smorgrav further uses network tool that provides in-depth views of the network in a graphical format wherein the map indicates which devices and network segments are healthy and which areas need attention (col. 2 lines 26-37, col. 3 lines 13-61). Smorgrav discloses using parser (col. 3 line 50 – col. 4 line 47) to parse collected samples enabling for

Art Unit: 2643

correlation of performance data so that graphical analysis may be performed (col. 5 line 64 – col. 6 line 37) to assist in network planning or trouble shooting, monitoring, as well as, generating readable reports (col. 6 lines 32-38).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the invention as taught by Cowan to use the parser as taught by Smorgrav for the benefit of automatically parsing the gathered information in order to detect network trends so that corrective action can be taken before a problem develops as taught by Smorgrav (col. 1 lines 22-37).

Regarding claim 2. Cowan teaches retrieving information regarding the device and status of device (col. 2 lines 22-58, col. 5 lines 20-56).

Regarding claims 3 and 27. Cowan teaches automatically queries device (col. 12 line 64 – col. 13 line 7, col. 14 line 61 – col. 15 line 9, col. 15 line 55 – col. 16 line 47).

Regarding claims 4 and 28. Cowan teaches telecommunication networks including fiber transmission systems (col. 1 lines 10-22).

Regarding claims 5 and 29. Cowan teaches constructing the queries by issuing protocol commands formatted in the appropriate syntax for the communication device (col. 4 line 61 – col. 5 line 19).

Regarding claim 6. Cowan teaches analyzing the performance of the communication device (figure 11, col. 13 lines 8-12).

Art Unit: 2643

Regarding claims 9-11. Cowan teaches network analysis tool (see col. 2 lines 47-58, see GUI tool col. 6 lines 30-67, see reference engines col. 7 line 4), detecting unsolicited alarms (i.e. without human intervention---col. 5 lines 36-39, col. 7 lines 49-51, see reading start-up and run-time parameters---col. 9 lines 53-56, see real-time displays used to display real-time status of network so user can receive real-time alarms---col. 10 lines 16-22, see network tool used to allow user to open window to display real-time status of all network DXC links---col. 12 lines 44-47, see network tools uses color-coding to display status of network---col. 14 line 54 – col. 15 line 66, see network tool used for real-time updating---col. 16 lines 12-33).

Regarding claim 13. Cowan teaches wherein device audit information includes device configuration information (figure 16), performance level information (figure 16), and identification parameters that do not meet threshold levels (see fault analysis component 416 figure 4, col. 10 lines 12-22, col. 10 line 65 – col. 11 line 67, columns 12-16).

Regarding claim 14. Cowan teaches wherein the network communication device audit information includes a network communication device audit report that has the same user friendly look and feel for a variety of devices across different architectures and is organized in a manner that facilitates network management and maintenance (figure 11, col. 4 line 61 – col. 5 line 19).

Regarding claim 15. Cowan teaches wherein the network communication device audit report presents information associated with different areas of network

Art Unit: 2643

management impact (col. 7 lines 1-10, col. 10 lines 12-22, col. 10 line 65 – col. 11 line 65, col. 12 lines 33-67, columns 13-16).

Regarding claim 16. Cowan teaches wherein areas of network management impact areas includes fault management, performance management, capacity management, and configuration management (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47, figures 11 and 16).

Regarding claims 18-23 and 32-36. Cowan does not explicitly show using net rules.

Smorgrav teaches method and apparatus for displaying health status of network devices (abstract). Smorgrav discloses configuration, performance and fault information (abstract, col. 1 line 10 – col. 2 line 40). Smorgrav teaches the data collected can be exploited either manually by an operator or automatically (col. 1 lines 26-47). Smorgrav further uses network tool that provides in-depth views of the network in a graphical format wherein the map indicates which devices and network segments are healthy and which areas need attention (col. 2 lines 26-37, col. 3 lines 13-61). Smorgrav discloses using parser (col. 3 line 50 – col. 4 line 47) to parse collected samples enabling for correlation of performance data so that graphical analysis may be performed (col. 5 line 64 – col. 6 line 37) to assist in network planning or trouble shooting, monitoring, as well as, generating readable reports (col. 6 lines 32-38).

Art Unit: 2643

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the invention as taught by Cowan to use the parser as taught by Smorgrav for the benefit of automatically parsing the gathered information in order to detect network trends so that corrective action can be taken before a problem develops as taught by Smorgrav (col. 1 lines 22-37).

Regarding claim 24. Cowan teaches the audit tool identifies potential causes of problems (abstract, col. 2 lines 11-67, col. 3 line 64 – col. 5 line 56, col. 6 lines 30-67, col. 7 lines 1-10, col. 9 line 48 – col. 10 line 22, col. 10 line 65 – col. 11 line 58, col. 12 line 9 – col. 13 line 54, col. 14 line 29 – col. 15 line 9, col. 16 lines 26-47, figure 11).

Regarding claims 25, 30 and 37. Smorgrav teaches parsing collected data enabling the user to detect trends in network so that corrective action can be taken (col. 1 lines 22-37, col. 2 lines 26-37).

Response to Arguments

2. Applicant's arguments filed 3/31/05 have been fully considered but they are not persuasive.

a) Regarding Applicant's remark starting on page 12 and continuing to page 13 wherein Applicant's continue to argue that Cowan does not teach automatically parsing the gathered information.

The Examiner respectfully disagrees. See background of Cowan wherein manual control methods of prior art are discussed and Cowan's summary of invention wherein manual inputs are automated by using a universal graphical interface. Furthermore, why does Cowan allow for "unsolicited" alarms to be communicated to the

Art Unit: 2643

universal graphical interface (column 5 and column 10) or use an “inference” engine to read in alarm data from external systems along with network topology data (see figure 2 wherein server 210 gathers information automatically) or update network topology data without human intervention (see figure 2 wherein server 210 updates topology data 250 without human intervention) or use internal messages for “automatically” determining if client processes responds to periodic hello messages? Furthermore, Cowan even allows the user to configure server 210 enabling for the configured parameters to be “automatically” read at start-up as well as run-time (column 9 lines 51-62).

The Examiner notes that **Applicant's invention requires significant manual input** (see Applicant's figures 11A-11B wherein manual commands 1101 and 1111 are used to “automatically” gather network information and supported in Applicant's detailed specification starting at the last two lines of page 36) which is similar to Cowan, except Cowan does not require gathering information in response to request command (i.e. see Applicant's manual request command generally denoted as “>RTRV_INV::SLOT_ALL:301;” appearing in command line 1101 figure 11A and appearing in command line 1111 figure 11B). The Examiner agrees in that Cowan teaches away from long manual input commands by using a universal graphical interface.

b) Next, Applicant's continue to argue that Cowan fails to teach or suggest parsing the gathered information (see bottom of page 12 continuing to page 13).

The Examiner disagrees. See Examiner's rejection listed above wherein Cowan shows parsing the gathered communication device information (col. 1 lines 30-35, col. 2 lines 44-58, col. 3 line 64 – col. 4 line 11, col. 5 lines 49-60, col. 6 lines 30-35, col. 7 lines 1-10, col. 9 lines 23-67, columns 14-16), including identifying portions of the communication device information and correlating the portions of the communication device information to an operation or characteristic of a network communications device (figures 11 and 16, col. 10 lines 12-22, col. 12 lines 33-46, col. 13 lines 18-32).

In other words, analyzing and filtering data reads on “parsing” the collected data. One of ordinary skill in the art would readily recognize “inference engines” require some sort of “rules” to follow when analyzing collected data (Cowan---column 7). Cowan uses inference engine to process external alarms and one of ordinary skill in the art of inference engines would readily recognize to display an external alarm to a graphical user interface would require some sort of identification information especially if the alarm was “unsolicited” and “potentially” impacting other telecommunication network infrastructure.

c) Next, Applicant's argue that Smorgrav and Cowan do not teach identifying portions of the communication device information and correlating the portions of the communication device information to an operation or characteristic of network communications device, wherein the characteristic of the communications device is configuration, performance OR functionality (see bottom page 13 continuing to page 14, paper dated 3/31/05).

The Examiner disagrees. Cowan uses inference engine to process external alarms and one of ordinary skill in the art of inference engines would readily recognize to display an external alarm to a graphical user interface would require some sort of identification information especially if the alarm was “unsolicited” and “potentially” impacting other telecommunication network infrastructure.

Smorgrav teaches method and apparatus for displaying health status of network devices (abstract). Smorgrav discloses configuration, performance and/or fault information (abstract, col. 1 line 10 – col. 2 line 40). Smorgrav teaches the data collected can be exploited either manually by an operator or automatically (col. 1 lines 26-47). Smorgrav further uses network tool that provides in-depth views of the network in a graphical format wherein the map indicates which devices and network segments are healthy and which areas need attention (col. 2 lines 26-37, col. 3 lines 13-61). Smorgrav discloses using parser (col. 3 line 50 – col. 4 line 47) to parse collected samples enabling for correlation of performance data so that graphical analysis may be performed (col. 5 line 64 – col. 6 line 37) to assist in network planning or trouble shooting, monitoring, as well as, generating readable reports (col. 6 lines 32-38).

d) Next, Applicant's skip claims 2, 4, 28 and jump directly to claim 5 (see Applicant's general remark on page 15, second full paragraph) and argue that Cowan does not teach automatically constructing queries.

The Examiner disagrees. See sections a-d listed directly above. Furthermore, Cowan discloses "audit commands" column 2 line 55. Smorgrav teaches SNMP (col. 1 line 38) which is a well-known protocol.

e) Next, Applicant's argue that Cowan does not teach "performance" (see second to last paragraph on page 15, paper dated 3/31/05).

The Examiner notes that Applicant's have not defined what is meant by "performance". Therefore, "Link Status" (item 1140 figure 11) reads on "performance". Cowan figure 16 clearly uses the term "Performance".

f) Next, Applicant's start repeating arguments that Cowan fails to teach analyzing parsed information (see Applicant's arguments starting at the bottom of page 15 and continuing to page 16).

The Examiner disagrees (see sections a-e listed above). Furthermore, Smorgrav teaches method and apparatus for displaying health status of network devices (abstract). Smorgrav discloses configuration, performance and/or fault information (abstract, col. 1 line 10 – col. 2 line 40). Smorgrav teaches the data collected can be exploited either manually by an operator or automatically (col. 1 lines 26-47). Smorgrav further uses network tool that provides in-depth views of the network in a graphical format wherein the map indicates which devices and network segments are healthy and which areas need attention (col. 2 lines 26-37, col. 3 lines 13-61). Smorgrav discloses using parser (col. 3 line 50 – col. 4 line 47) to parse collected samples enabling for

Art Unit: 2643

correlation of performance data so that graphical analysis may be performed (col. 5 line 64 – col. 6 line 37) to assist in network planning or trouble shooting, monitoring, as well as, generating readable reports (col. 6 lines 32-38).

g) Next, Applicant's keep repeating arguments (see page 16, second to last paragraph continuing to page 17 wherein Applicant's argue that Cowan does not teach network communications device audit information includes device configuration information, performance level information and identification of parameters that do not meet threshold levels.

With regards to claim 13. Cowan teaches wherein device audit information includes device configuration information (figure 16), performance level information (figure 16), and identification parameters that do not meet threshold levels (see fault analysis component 416 figure 4, col. 10 lines 12-22, col. 10 line 65 – col. 11 line 67, columns 12-16).

With regards to claim 14. Cowan teaches wherein the network communication device audit information includes a network communication device audit report that has the same user friendly look and feel for a variety of devices across different architectures and is organized in a manner that facilitates network management and maintenance (figure 11, col. 4 line 61 – col. 5 line 19).

The Examiner notes that Cowan also teaches configuration, performance and identification information. For example, Smorgrav teaches method and apparatus for displaying health status of network devices (abstract). Smorgrav discloses

Art Unit: 2643

configuration, performance and identification information (abstract, col. 1 line 10 – col. 2 line 40). Smorgrav teaches the data collected can be exploited either manually by an operator or automatically (col. 1 lines 26-47). Smorgrav further uses network tool that provides in-depth views of the network in a graphical format wherein the map indicates which devices and network segments are healthy and which areas need attention (col. 2 lines 26-37, col. 3 lines 13-61). Smorgrav discloses using parser (col. 3 line 50 – col. 4 line 47) to parse collected samples enabling for correlation of performance data so that graphical analysis may be performed (col. 5 line 64 – col. 6 line 37) to assist in network planning or trouble shooting, monitoring, as well as, generating readable reports (col. 6 lines 32-38).

h) Applicant's next argue that Cowan fails to teach network management impact (second to last paragraph page 17).

The Examiner respectfully disagrees (see Examiner's rejection listed above). Furthermore, Smorgrav teaches network management impact (col. 1 line 10 – col. 2 line 37, col. 3 line 18 - col. 4 line 47, col. 6 lines 32-37).

i) Next, Applicant's argue that Cowan nor Smorgrav teach net rules (page 18, middle paragraph).

The Examiner notes that Applicant's fail to define or argue what is meant by net rules? Therefore, it is noted that Cowan invention allows for alarm data from external systems to be monitored and processed via "inference engines" (see inference engines used in

Art Unit: 2643

the internal server 210 figure 1) which alone reads on Applicant's general claim language. One of ordinary skill in the art would readily recognize "inference engines" require some sort of "rules" to follow when analyzing collected data. Smorgrav teaches net rules used to determine tolerance level associated with network devices (col. 1 line 10 – col. 2 line 40).

j) Applicant's argue that Smorgrav fails to teach assignment of net rule exception points (bottom of page 18 continuing to top of page 19).

The Examiner notes that Applicant's have failed to define what is meant by net rule exception points therefore Smorgrav ability to identify network problems and potential problems read on Applicant's general claim language.

k) Applicant's conclude by arguing that Smorgrav fails to teach suggestive corrective course of action (page 19).

The Examiner respectfully disagrees. Smorgrav not only allows for corrective action to be taken but "automatically" implements corrective action (col. 3 lines 18-22).

Conclusion

3. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2643

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (571) 272-7499. The facsimile phone number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Barry W. Taylor
Patent Examiner
Technology Center 2600
Art Unit 2643



CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600